

U.S. Serial No. 09/873,614

Attorney Docket No. P05185US1

REMARKS**Overview**

Claims 1-29 and claim 33 are pending in the present application. Claims 1, 9, 16 and 19 have been amended and claim 33 is new. The present response is an earnest effort to place all claims in proper form for allowance. Reconsideration and passage to issuance are respectfully requested.

Claim Amendments for Clarity

Claim 1 has now been amended to clarify that there can be more than one parent structure. Thus, the term --at least one-- has been added. This amendment does not narrow the claim. Claims 9 and 16 have also been amended to provide proper antecedent basis.

Issues under 35 U.S.C. § 112

Claim 19 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner explains that:

Claim 19 recites the limitation "designing the parent structure to reduce the residual nanostructure size" in lines 1-2. It is not clear what steps are recited. Also, it is not clear what configuration or spacing is recited. Further, it appears that the process of claim 1 inherently produces a residual structure smaller than the parent structure.

In addition, the Examiner indicates that there is insufficient antecedent basis for the limitation of "the residual nanostructure". Claim 19 has been amended to clarify the subject matter of claim 19 and correct the antecedent basis. Claim 19 now recites "[t]he method of claim 1 further comprising designing the at least one parent structure to result in the residual structure having a width less than a width of the at least one parent structure". It is noted that the process of claim 1 does not, however, inherently produce a residual structure smaller than the parent

U.S. Serial No. 09/873,614

Attorney Docket No. P05185US1

structure. Rather, the process of claim 1 can be used to create residual structures that are not smaller than the parent structure but have less space between portions of the residual structure. For example, a parent structure of a single dot (claim 6) would produce a much larger structure than the parent. It is believed that this amendment should clarify, correct the antecedent basis, and thus the rejection should be withdrawn. In addition, new claim 33 has been added to refer to the "spacing" aspect of size since claim 19 now refers to width.

Claims 1-19 and 21-29 have been rejected under 35 U.S.C. § 112, first paragraph as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Examiner's reasoning is that "there is no description in the specification of performing the process of claims 1-19 and 21-29 using a parent structure which is not convex." (Office Action, page 3). The Applicant respectfully disagrees in that the specification reasonably describes or conveys the concepts to one of ordinary skill in the art at the time of filing the patent application of the claimed invention. In particular, the application provides express support for various shapes. For example, at page 13, the Applicant describes that "this method is applicable to a variety of structures, e.g. wires, dots and rings." The wires need not be concave or convex, dots are convex, and rings are both concave and convex. The shape of the residual structure, is of course dependent upon the parent structure. In addition, it is described that "the parent structure is not limited to any particular pattern and may include any number of traces, including traces that form rings or other complex structures." (Specification, page 6, lines 15-16). Examples of parent structures can include "lines or rings" (Specification, page 7, second full paragraph). In addition, the specification is clear that multiple generations of parent structures can be used (i.e. Specification, page 12, third

U.S. Serial No. 09/873,614

Attorney Docket No. P05185US1

paragraph). It should be apparent that when multiple generations are used, if one generation uses concave segments, the next generation would have convex segments, the subsequent generation would have concave segments, the subsequent generation would have convex segments, etc. The use of "concave segments" in these parent (or intervening generation) structures is specifically mentioned on page 12, third paragraph. Therefore, the Examiner has failed to meet a prima facie case of lack of written description and this rejection should appropriately be withdrawn.

Claims 1-19 and 21-29 have been rejected under 35 U.S.C. § 112, first paragraph because the Examiner states that "the specification, while being enabling for the parent structure having a concave segment, does not reasonably provide enablement for parent structure' broadly because there is no description of performing the process of claims 1-19 and 21-29 using a parent structure which is not convex." (Office action, page 3, first full paragraph). It is unclear the rationale for the Examiner's rejection because there is explicit disclosure, discussed above, for using parent structures of various shapes to produce residual structures of various shapes. There simply is no limitation on the shape of the structure used or the shape of the resulting structure and no reason why someone skilled in the art having read the disclosure, would not understand that any shape of parent structure can be used as needed to define a desired residual structure or subsequent generation parent structure.

It is believed that it is possible that perhaps the Examiner is considering the terms "concave" or "convex" to refer to whether the parent structure extends outward or inward with respect to the surface of the substrate. It is believed that perhaps this is the Examiner's understanding because the Examiner explains that "it is not taught how to perform the process using a parent structure that is planar to the substrate surface" (Office Action, page 3, first full paragraph, last sentence). The shape of the parent structure is the shape of the pattern of the

U.S. Serial No. 09/873,614

Attorney Docket No. P05185US1

parent structure which should be clear because the parent structure is "deposited on a substrate". Therefore, when the Applicant says "concave segment", the Applicant is referring to the shape of the structure such as shown when looking from a top view. Therefore, if that is the basis for the Examiner's rejection, the rejection should be withdrawn.

Allowable Subject Matter

Although the Examiner has indicated that claim 20 would be allowable if rewritten to overcome the rejections under 35 U.S.C. § 112, the Applicant does not believe that the patentability of the invention is limited to claim 20, as claim 20 recites a non-essential feature because any shape of parent structure can be used.

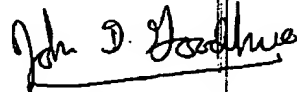
Conclusion

Therefore, Applicant submits that all claims are in proper for immediate allowance and respectfully requests a Notice of Allowance and passage to issuance.

No fees or extensions of time are believed to be due in connection with this amendment; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account No. 26-0084.

Reconsideration and allowance is respectfully requested.

Respectfully submitted,



John D. Goodhue, Reg. No. 47,603
McKEE, VOORHEES & SEASE, P.L.C.
801 Grand Avenue, Suite 3200
Des Moines, Iowa 50309-2721
Phone No: (515) 288-3667
Fax No: (515) 288-1338
CUSTOMER NO: 27407
Attorneys of Record

- pw/bja -